

EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

IN RE NATIONAL	:	MDL No. 2804
PRESCRIPTION OPIATE	:	CASE NO. 17-MD-2804
LITIGATION	:	(DAP)
	:	

EXPERT REPORT OF CRAIG J. MCCANN, PH.D., CFA
March 25, 2019

can also refer to the amount by which a quantity of one in the transaction falls short of or exceeds the standard size package of the NDC.¹⁹

16. Transaction Date

47. Transaction Date is the date a shipment occurred, not the date an order was placed by the Buyer or received by the Seller or the date of some other activity.²⁰

17. Calculated Base Weight in Grams

48. The Calculated Base Weight in Grams is the total active ingredient weight, in grams, of a drug in the reported transaction. The Calculated Base Weight in Grams in the ARCOS Data produced by the DEA was not reported by the Sellers. Rather, it was calculated by the DEA and appended (along with information about the Buyer and the Seller, the Drug Code, the Drug Name, and the Dosage Units) by the DEA before the data was produced. As explained in Appendix 2, I verify the Calculated Base Weight in Grams for each transaction using the NDC Dictionary.

18. Dosage Units

49. Dosage Units is the number of packages in the transaction, multiplied by the number of discrete individual drug products (e.g., pills, patches, lozenges) in each package. Dosage Unit is only populated if the drug product is delivered as a capsule, tablet, film, suppository, patch, lollipop, or lozenge. The Dosage Unit in the ARCOS Data was not reported by the Sellers. Rather, it was calculated by the DEA and appended by the DEA before the

¹⁹ ARCOS Handbook, §5.17, p. 5-43.

²⁰ ARCOS Handbook, §5.15.1, p. 5-40.

weights within 1.0% of the weights I aggregate up from the processed ARCOS transaction data.

71. The RDSRs confirm the accuracy of the ARCOS Data I received. The correlation between the RDSRs' reported drug weight and the weights I calculate from the ARCOS Data is **0.999** on a scale from -1.00 to +1.00.

Table 12 Ratios of Retail Drug Summary Report and ARCOS Drug Weights

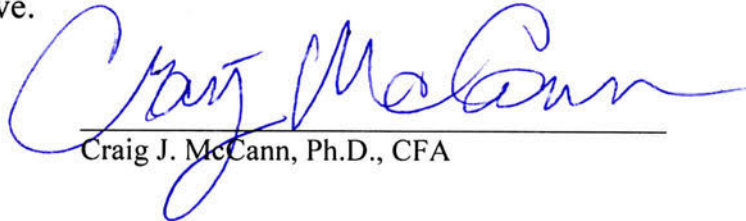
Drug Code	N	N(%)	1st Percentile	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile	99th Percentile
9050	32,155	7.9%	0.97	1.01	1.04	1.07	1.11	1.20	1.32
9064	31,923	7.8%	0.76	0.92	1.00	1.00	1.00	1.02	1.09
9120	23,214	5.7%	0.00	0.71	1.00	1.00	1.00	1.01	1.19
9143	32,119	7.9%	0.90	0.97	1.00	1.00	1.00	1.02	1.11
9150	32,042	7.8%	0.82	0.97	1.00	1.00	1.00	1.03	1.28
9193	32,164	7.9%	0.89	0.98	1.00	1.00	1.00	1.04	1.35
9220L	13,821	3.4%	0.93	0.93	0.99	1.00	1.00	1.03	1.03
9230	32,049	7.8%	0.89	0.98	1.00	1.00	1.01	1.12	1.37
9250B	32,075	7.9%	0.86	0.99	1.00	1.00	1.00	1.02	1.30
9300	32,111	7.9%	0.88	0.98	1.00	1.00	1.00	1.03	1.17
9639	30,138	7.4%	0.91	1.00	1.00	1.00	1.00	1.00	1.06
9652	31,287	7.7%	0.75	0.94	1.00	1.00	1.00	1.00	1.10
9780	21,175	5.2%	0.93	1.00	1.00	1.00	1.00	1.00	1.07
9801	32,116	7.9%	0.84	0.95	0.98	1.00	1.00	1.06	1.31
Total	408,389	100.0%	0.81	0.96	1.00	1.00	1.00	1.09	1.24

B. Defendants' Transaction Data

72. In addition to receiving the ARCOS Data produced by the DEA, I received transaction data produced in discovery by 13 Defendants.²⁹ I

²⁹ The 13 Defendants are Anda, AmerisourceBergen, Cardinal Health, CVS, Discount Drug Mart, HBC, Henry Schein, H. D. Smith, McKesson, Prescription Supply, Rite Aid, Walgreens, and Walmart. I do not discuss the data produced by Rite Aid or Henry Schein because the produced data was insufficient to compare with the ARCOS Data. Rite Aid did not produce the Buyer's DEA numbers, and the data produced by Rite Aid does not identify which counties are included in the data. Henry Schein did not include the Buyer's DEA numbers or NDCs. Appendix 7 lists the data fields provided by each Defendant. I have standardized the names of the fields to simplify the presentation.

183. The ARCOS Data can be used to identify transactions into a state, county, zipcode or individual pharmacy meeting certain criteria as I have illustrated above.



Craig J. McCann, Ph.D., CFA